

ABSTRACT

**PARALLEL FIELD ELECTRODE CONFIGURATIONS FOR
ELECTRORHEOLOGICAL FLUID APPLICATIONS**

The present invention provides novel configurations for the electrodes in a range of applications for ER fluids. The electrodes are configured so that they generate an electrical field a significant portion of which extends parallel to any anticipated applied force of direction of likely distortion that may act to disrupt the agglomeration of ER particles. By so arranging the electric field to be parallel to such a force there is a strong binding force that acts to counter and tendency for the particles to be disrupted.